

THE CLAIMS**WHAT IS CLAIMED IS:**

1. A method of real-time testing for the presence of an analyte, wherein is provided a sample, comprising the steps of:
 - (a) obtaining a colorimetric indicator that has been reversibly incorporated into a binding protein, said binding protein having an active site and said colorimetric indicator being reversibly bound at said active site;
 - (b) exposing said colorimetric indicator and said binding protein to the sample;
 - (c) determining whether said colorimetric indicator has been displaced from said binding protein by measuring at least one spectral value of said colorimetric indicator and said binding protein; and,
 - (d) determining from any spectral value so measured whether or not said analyte is present within said sample.
2. A method according to Claim 1, wherein step (a) includes the step of immobilizing said colorimetric indicator and said binding protein on a surface.
3. A method according to Claim 1, wherein said colorimetric indicator is a porphyrin.
4. A method according to Claim 1, wherein said binding protein is AChE.

5. A method according to Claim 2, wherein said surface is a microscope slide.
6. A method according to Claim 1, wherein two spectral values are measured.
- 5 7. A method according to Claim 6, wherein a first of said two spectral values is measured at about 402 nm and the other at about 442 nm.
8. A method according to Claim 1, wherein step (d) includes the steps
 - (d1) obtaining at least one pre-exposure spectral measurement of said colorimetric indicator and said binding protein before exposure to the sample,
 - (d2) calculating at least one numerical difference between said at least one measured spectral values and said at least one pre-exposure spectral measurements.